

Docket No.: 4006-003

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

Jinsaun CHEN

Serial No.

Filed: October 1, 1998

For: TRANSMITTER-RECEIVER SYSTEM FOR USE IN AN AUDIO EQUIPMENT

**TRANSMITTAL OF VERIFIED STATEMENT
CLAIMING SMALL ENTITY STATUS**

Honorable commissioner of
Patents and Trademarks
Washington, DC 20231

Sir:

Transmitted herewith for filing in the above-referenced application is(are) the following:

VERIFIED STATEMENT CLAIMING SMALL ENTITY STATUS -
INDEPENDENT INVENTOR

Respectfully submitted,



Donald C. Casey
Registration No. 24,022

99 Canal Center Plaza, Suite 300
Alexandria, Virginia 22314
(703) 548-2131 DCC:slv
Date: October 1, 1998

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Applicant or Patentee: Jinsam CHENAttorney's Docket No.: 4006-003

Serial or Patent No.: _____

Filed or Issued: _____

For: TRANSMITTER-RECEIVER SYSTEM FOR USE IN AN AUDIO EQUIPMENT**VERIFIED STATEMENT (DECLARATION) CLAIMING SMALL ENTITY STATUS
(37 CFR 1.9(f) and 1.27(c)) - SMALL BUSINESS CONCERN**

I hereby declare that I am

NAME Jinsam CHENADDRESS 2nd FL. No. 8 & 10, Lane 337, Yung Ho Rd, Chung Ho City, Taipei Hsien☒ INDIVIDUAL☐ SMALL BUSINESS CONCERN☐ NONPROFIT ORGANIZATIONTaiwan
R.O.C

I hereby declare that rights under contract or law have been conveyed to and remain with the individual identified above with regard to the invention, entitled TRANSMITTER-RECEIVER SYSTEM FOR USE IN AN AUDIO EQUIPMENT by inventor(s) Jinsam CHEN described in

☒ the specification filed herewith.☐ application Serial No. _____, filed☐ patent no. _____, issued.

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR 1.28(b))

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

NAME OF PERSON SIGNING: Jinsam CHEN

TITLE IN ORGANIZATION: _____

ADDRESS OF PERSON SIGNING: _____

SIGNATURE: [Signature]DATE: 1998. 9. 29

2001-09-30 10:19:58

REGULAR DECLARATION FORM

Docket No.: 4006-003

DECLARATION AND POWER OF ATTORNEY

As a below named inventor, I hereby declare that:

My residence, post office and citizenship are as stated below next to my name,

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter claimed and for which a patent is sought on the invention entitled **TRANSMITTER-RECEIVER SYSTEM FOR USE IN AN AUDIO EQUIPMENT** the specification of which

☒ is attached hereto ☐ was filed on as Application Serial No. and was amended on (if applicable)

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is known to me to be material to patentability in accordance with Title 37, Code of Federal Regulations, Section 1.56(a).

I hereby claim foreign priority benefits under Title 35, United States Code, Section 119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

Prior Foreign Application(s):			Priority Claimed	
<u>Number</u>	<u>Country</u>	<u>Day/Month/Year filed</u>	<u>Yes</u>	<u>No</u>

I hereby claim the benefit under Title 35, United States Code, Section 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, Section 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, Section 1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

Prior U. S. Application(s):

<u>Serial No.</u>	<u>Filing Date</u>	<u>Status: Patented, Pending, Abandoned</u>
08/633,644	April 17, 1996	Patented- U.S. Patent No. 5,722,050

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

I hereby appoint the following attorney, Donald C. Casey, of

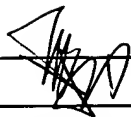
99 Canal Center Plaza, Suite 300
Alexandria, Virginia 22314

with full power of substitution and revocation, to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith, and all future correspondence should be addressed to him.

Full name of sole or first inventor: Jinsaun CHEN

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Inventor's signature:



Date: 1998.9.23

Residence: 2nd Floor, No. 8 & 10, Lane 337, Yung Ho Road, Chung Ho City, Taipei, Taiwan R.O.C.

Citizenship: Taiwanese

Post Office Address:

86F00T"0E949T60

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re: Reissue Application of U. S. Patent No. 5,722,050

Issued: February 24, 1998

Inventor: Jinsaun Chen

SUPPLEMENTAL REISSUE DECLARATION

Honorable Commissioner of Patents and Trademarks

Sir:

Aiesha Chien declares and says as follows:

1. She was employed by Mr. Jinsaun Chen in the early summer of 1998 to prepare draft claims of a spectrum from broad to narrow covering the invention as described in the specification of U. S. Patent No. 5,722,050. She prepared the draft and submitted it to Mr. Donald C. Casey who further revised the claims and advised that the revised claims were supported by the instant specification.

2. She has read the attached declaration of the inventor, Jinsaun Chen, and on information and belief corroborates the facts stated therein.

I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title

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18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.



AIESHA CHIEN

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DATE

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Re: Reissue Application of U. S. Patent No. 5,722,050

Issued: February 24, 1998

Inventor: Jinsaun Chen

SUPPLEMENTAL REISSUE DECLARATION

Honorable Commissioner of Patents and Trademarks

Sir:

Jinsaun Chen declares and says as follows:

1. He is the inventor in the above entitled patent and in this reissue application therefore; and in that capacity executed the attached Inventor's declaration.

2. It has been discovered that U. S. Patent No. 5,722,050, through error and without any deceptive intention, is partly inoperative or invalid by reason of the patentee claiming less than he had a right to claim in the patent.

3. The inventor hereby proffers surrender of such patent upon allowance of this reissue application.

4. The error that renders the patent wholly or partly inoperative or invalid resulted from failure to claim the invention accordingly to claims 2-37 as follow:

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What the invention claims is:

2. A transmitter for a wireless transmitter-receiver system wherein the transmitter is coupled to audio equipment to transmit an audio signal therefrom comprising:

an automatic audio level regulating circuit comprised of an audio regulating IC, having an input terminal adapted to be connected to the output terminal of said audio equipment to regulate the audio level of an output signal from said audio equipment to a predetermined range, and an output terminal;

a signal processing circuit having an input terminal connected to the output terminal of said automatic audio level regulating circuit, and an output terminal;

an (external and internal) dual adjustable oscillatory frequency regulating circuit comprising an oscillator transistor, and dielectric resonator, a first variable capacitor, a second variable capacitor diode, an input terminal connected to the output terminal of said signal processing circuit, and an output terminal; a first intermediate frequency output being at least about 10MHz adjusted by said first variable capacitor.

an inductance antenna connected to the output terminal of said (external and internal) dual adjustable frequency regulating circuit, said inductance antenna being a matching device; and

a power control circuit controlled by the output signal of said audio equipment to provide the necessary working voltage to said transmitter unit, said power control circuit comprising a signal amplifier, a comparator and a transistor switch, so that when said signal amplifier receives an input signal from said audio equipment it drives

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said comparator and transistor switch permitting the connection of an external power supply or battery supply to said transmitting unit.

3. The invention of claim 2 wherein said transmitter unit can be used in a wireless audio transmitting and receiving system, or wireless microphone transmitting system.

4. The invention of claim 2 wherein said automatic audio level regulating circuit comprises an electrical regulating IC, having an input terminal adapted to be connected to an output terminal of said audio equipment to regulate the audio level of the output signal of said audio equipment to a predetermined range, and an output connected to said signal processing circuit.

5. The invention of claim 2 wherein said signal processing circuit has an input terminal connected to the output terminal of said automatic audio level regulator, and an output terminal connected to said (external and internal) dual adjustable oscillatory frequency regulating circuit.

6. The invention of claim 2 wherein said signal processing circuit comprises a 3-dimensional signal multi-regulating circuit through which +/- 19KHz pilot signals can be regulated and transmitted to said (external and internal) dual adjustable oscillatory frequency circuit.

7. The invention of claim 2 wherein said (external and internal) dual adjustable oscillatory frequency regulating circuit comprises an oscillatory transistor, a dielectric resonator, a first variable capacitor and a second variable capacitor diode, having an input terminal connected to the output terminal of said signal processing circuit, and an output terminal connected to said inductance antenna.

8. The invention of claim 7 wherein said (external and internal) dual adjustable oscillatory frequency regulating circuit comprises a first variable capacitor which is internally adjustable.

9. The invention of claim 7 wherein said second variable capacitor diode is externally adjustable by users through frequency controller VR1.

10. The invention of claim 7 wherein said (external and internal) dual adjustable oscillatory frequency regulating circuit has a first intermediate frequency output of at least 10MHz and is adjustable by said first variable capacitor.

11. The invention of claim 7 wherein said (external and internal) dual adjustable oscillatory frequency regulating circuit includes a : (a) variable resistor (b) variable capacitor, (c) variable electrical sensor or above mentioned combination of (a) (a), (b) (b), (c) (c) , (a) (b), (b) (c), (a) (c).

12. The invention of claim 2 wherein said inductance antenna is connected to the output terminal of said (external and internal) dual adjustable oscillatory frequency regulating circuit, said inductance antenna being a matching device.

13. The invention of claim 12 wherein said inductance antenna provides stable and non-floating wireless audio signals to the receiver unit.

14. The invention of claim 2 wherein said power control circuit is controlled by the output signal of said audio equipment to provide the necessary working voltage to said transmitter unit.

15. The invention of claim 14 wherein said power control circuit comprises a signal amplifier, a comparator and a transistor switch said signal amplifier adapted to

receive an input signal from said audio equipment, said comparator and transistor switch connecting an external power supply or battery supply and said transmitter unit.

16. The invention of claim 14 wherein said power control circuit is controlled automatically and manually.

17. The invention of claim 2 wherein said transmitter unit processes an audio signal input in stereo.

18. The invention of claim 2 wherein said transmitter unit further comprises a special noise blocking system for direct connection to a television, compact disc player, automobile audio system or center speaker without interference.

19. The invention of claim 2 wherein said transmitter unit can be used with a plurality of receiving earphones simultaneously.

20. A receiver for a wireless transmitter-receiver system wherein the transmitter is coupled to audio equipment to transmit an audio signal therefrom through an inductance antenna comprising:

a receiving antenna to receive an audio signal transmitted from an inductance antenna of said transmitter unit.

an (external and internal) dual adjustable oscillatory frequency regulating circuit comprising an oscillatory transistor, a dielectric resonator, and a variable capacitor and a variable capacitor diode, an input terminal connected to the output terminal of said receiving antenna, and an output terminal;

a signal processing circuit connected to said (external and internal) dual adjustable oscillatory frequency regulating circuit to process received signals and to provide a processed signal to said earphone.

an automatic 24-time frequency divider circuit comprising a resistor and an oscillator , connected to an IC of said receiver signal processing circuit to divide the frequency of said received signal by 24, so as to provide a 19KHz three-dimensional demodulated signal; and

an auto-shut off circuit comprising an IC and a transistor, said transistor being controlled by said IC to turn a power supply on/off.

21. The invention of claim 20 wherein said (external and internal) dual adjustable oscillatory frequency regulating circuit comprises an oscillatory transistor, a dielectric resonator, a first variable capacitor and a second variable capacitor diode.

22. The invention of claim 21 wherein said (external and internal) dual adjustable oscillatory frequency regulating circuit has an input terminal connected to the output terminal of said receiving antenna, and an output terminal connected to said signal processing circuit.

23. The invention of claim 21 wherein said (external and internal) dual adjustable oscillatory frequency regulating circuit includes a frequency controller VR1 adjustable externally by users.

24. The invention of claim 21 wherein said (external and internal) dual adjustable oscillatory frequency regulating circuit has a first intermediate frequency at least above 10MHz.

frequency regulating circuit has the capability to broadly adjust the frequency, and to downconvert

25. The invention of claim 21 wherein said (external and internal) dual adjustable oscillatory frequency regulating circuit provides a local oscillatory frequency

that can be broadly adjusted without a conventional SAW and which fixes the first local oscillatory frequency and adjusts the second local oscillatory frequency.

26. The invention of claim 21 wherein said (external and internal) dual adjustable oscillatory frequency to at least about 10MHz.

27. The invention of claim 20 wherein said signal processing circuit is connected to said external and internal dual adjustable oscillatory frequency regulating circuit.

28. The invention of claim 27 wherein said signal processing circuit is capable of processing received signals and providing processed signals to said receiver unit.

29. The invention of claim 27 wherein said signal processing circuit within which the second local oscillation is adjustable by users or consumers to switch channels.

30. The invention of claim 27 wherein said signal processing circuit is capable of demodulating stereo audio signals to provide high fidelity 19KHz multi-demodulating signals.

31. The invention of claim 20 wherein said auto-shut off circuit is comprised of an integrated circuit and transistors, said auto-shut off circuit being controlled by the IC of said auto-shut off to automatically turn an external power supply or battery supply on and off.

32. The invention of claim 31 wherein said auto-shut off circuit can automatically turn on said receiver unit when it receives an audio signal and automatically turn off said receiver unit when it receives no audio signal.

33. The invention of claim 20 wherein said receiver unit consists of integrated circuits and transistors.

34. The invention of claim 21 wherein said (external and internal) dual adjustable oscillatory frequency regulating circuit includes a (a) variable resistor, (b) variable capacitor, (c) variable electrical sensor or above mentioned combination of (a) (a), (b) (b), (c) (c), (a) (b), (b) (c), (a) (c), coupled with a fixed electric resonator, electric capacitor, inductor, dielectric resonator, transistor, mixer and IC to produce a downconverter.

35. The invention of claim 20 wherein said receiver unit is housed in an earphone.

36. The invention of claim 20 wherein said receiver unit can be used in a wireless audio receiving speaker, and wireless microphone.

37. The invention of claim 21 wherein said receiver unit, being wireless, can be positioned or relocated from place to place by users.

5. The error arose as follows:

A. Applicant-Patentee is a citizen of the Republic of China, whose address is 2F1., No. 8 & 10, Lane 337, Yung Ho Road, Chung Ho City, Taipei Hsien, Taiwan.

B. Being unfamiliar with United States patent practice he engaged the services of Harvard Patent & Trademark, a firm owned by Mr. Wei-Hsing Cheng, 10th Floor, No. 91, Roosevelt Road, Sec.2, Taipei, Taiwan to initially prepare the parent patent application herein. Neither Mr. Cheng or any of his employees are authorized to practice before the United States Patent and Trademark Office.

C. Mr. Cheng prepared the application and the application was filed through Donald C. Casey, a patent attorney located at 99 Canal Center Plaza, Suite 300, Alexandria, Virginia, 22314, registration number 24,022. Mr. Casey was not authorized to revise or otherwise prepare claims covering the invention because the inventor and his Chinese counsel were not aware that broader coverage should have been sought based upon the invention and known prior art.

D. The case as filed contained only a single claim claiming all elements of the instance invention in detail and that claim resulted in the only claim in the above identified patent.

E. Subsequent to the issue of that patent, potential infringing devices were discovered on sale in the United States and the advice of Mr. Casey was sought concerning infringement. Mr. Chen was then informed by Mr. Casey, for the first time in the early of summer 1998, that infringement most likely would not be present because the single claim was too narrow. He was advised that the patent specification would support a spectrum of claims from broad to narrow. He then engaged the services of Aiesha Chien to prepare draft claims which were submitted to Mr. Casey for revision resulting in the instant claims 2-37, and directed the preparation of this reissue application in order to correct the error resulting in the above entitled patent whereby he claimed less than he had a right to claim.

I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title

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18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.



JINSAUN CHEN

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